UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/599,947	06/23/2000	Vinay Kundaje	9237	9237

26652   7590   08/19/2005

AT&T CORP.
P.O. BOX 4110
MIDDLETOWN, NJ 07748

EXAMINER
MEW, KEVIN D

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 April 2005</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>39-59 and 61-70</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>43,45,46,55-59 and 61-70</u> is/are allowed.

6)☒ Claim(s) <u>39-42, 44 and 47-52</u> is/are rejected.

7)☒ Claim(s) <u>53 and 54</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Detailed Action

Response to Amendment

1.   Applicant's arguments/remarks filed on 8/17/2004 regarding claims 39-59, 61-70 have

been considered. Claims 39-59, 61-70 are currently pending and claims 1-38, 60 have been

canceled by the Applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 39-42, 44, 47-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Albal (US Publication 2003/0185375) in view of Bartholomew et al. (USP 6,215,858).

Regarding claims 39, 41, Albal discloses an apparatus, comprising:

a first voice-band switch (communication node, see lines 14-17, paragraph 0021,

page 2 and element 212, Fig. 8); and

a database coupled to the first voice-band switch (database server, see element

244, Fig. 8);

the first voice-band switch being configured to receive a direct-dialed voice-band

call from a calling party's telephone number (see lines see lines 14-17, paragraph 0021, page 2

and element 212, Fig. 8) and to automatically designate the direct-dialed voice-band call.

Abal does not specifically disclose automatically designate the direct-dialed voice-band

call as a voice-over-Internet protocol (VOIP) call.

However, Abal discloses routing direct dial call dynamically from a caller to a called

party (see lines 14-17, paragraph 0021, page 2). Abal further discloses the VOIP unit in a

transport system that converts speech inputs into a VOIP call to be transmitted over the Internet

(see lines 1-12, paragraph 0060, page 6).

Therefore, it would have been obvious to one ordinary skill in the art at the time the

invention was made to combine the direct dial feature with the VOIP call routing feature of Abal

such that direct-dialed voice-band calls are routed over an Internet protocol (IP) network and the

service registered with the communication node of Abal is a VOIP service such as the VOIP

routing and direct-dialed registration service taught by Abal. The motivation to do so is to allow

users to make direct dialed calls over the Internet in order to reduce user calling charges because

the Internet is a public packet-based network that allows voice inputs to be transmitted as VOIP

data packets without setting up a circuit-switched connection.

Abal does not explicitly disclose the first voice-band switch being an electronic switching

system (ESS) originating assist switch (OAS), the database being a universal subscriber data

structure (USDS) and the first voice-band switch being communicatively linked to an IP

gateway.

However, Bartholomew discloses a system of effecting transfer of voice messages from a

first switched telephone network to a second switched telephone network via the Internet,

wherein the system comprising Service Switching Points (SSPs) (ESS originating assist switch)

(see col. 7, lines 5-67, col. 8, lines 1-4, col. 35, lines 1-6, element 210, Fig. 6), Service Control

Point (SCP database), (see col. 19, lines 36-67, element 243, Fig. 6), and Internet Interface (see

element 1237, Fig. 13) that couples SSP 1241 to the Internet (see Fig. 13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the telephone switch of Abal with the SSP, SCP database and the

Internet Interface taught by Bartholomew such that the first voice-band switch is an ESS such as

SSP and the database is SCP database that contains records of an entire geographical area, and an

IP gateway is Internet Interface that couples SSP to the Internet. The motivation to do so is to

allow SCP to provide appropriate routing and billing instructions that the SSP executes to

complete the Internet-based voice call.

Regarding claim 40, Albal discloses the apparatus of claim 38, wherein the first voice-

band switch is further configured to open a billing record for the VOIP call (the communication

node comprises a billing server unit to record billing record data, see lines 1-5, paragraph 0063,

page 6).

Regarding claim 42, Albal discloses the apparatus of claim 37, wherein the first voice-

band switch (communication node, see element 212, Fig. 8) is further configured to route the

VOIP call to an IP gateway (Internet, see element 220, Fig. 8) for routing to an IP network, then

to a destination IP gateway (Local Area Network, see element 240, Fig. 8) and then to a local

access provider network (Paging Network, see element 211, Fig. 8) for routing to a destination

number of the direct-dialed voice-band call (communication device 203 is interpreted as the

destination while communication device 204 is the source, see element 203, Fig. 8).

Regarding claim 44, Albal discloses the apparatus of claim 37, further comprising a

provisioning system configured to automatically provision and maintain the network apparatus

(see Fig. 8).

Regarding claim 47, Albal discloses the apparatus of claim 38 further comprising:

a second voice-band switch (VOIP unit, see lines 1-12, paragraph 0060, page 6) element

248, Fig. 8) coupled to the first voice-band switch (communication node, see element 212, Fig.

8), wherein the second voice-band switch is configured to receive the automatically routed

direct-dialed voice-band call from the first voice-band switch, to forward the direct-dialed voice-

band call for transmission as a VOIP call (see lines 1-12, paragraph 0060, page 6), and to open a

billing record for the VOIP call (see lines 1-5, paragraph 0063, page 6).

Regarding claims 48 & 51, Abal discloses all the aspects of the claimed invention set

forth in the rejection of claim 47 above, except fails to disclose if the database contains

information that the calling party's telephone number is only registered for non-single-stage

VOIP services and the destination number of the direct-dialed voice-band call is inaccessible by

the VOIP service, to automatically designate the direct-dialed voice-band call as a circuit-

switched call; and to automatically route the direct-dialed voice-band call for routing as a circuit-

switched call if the direct-dialed voice-band call is designated as a circuit switched call.

However, Abal discloses both an integrated network that comprises both a PSTN network

and a VOIP network in the communication node. Therefore, it would have been obvious to one

ordinary skill in the art at the time the invention was made to modify the routing features of the

communication node of Abal such that it would route the direct-dialed voice call over a PSTN

network when rather a VOIP network when the user is not registered with the VOIP service nor

the number destination number is not accessible by the VOIP service such as the integrated

network taught by Abal. The motivation to do so is to allow users to make direct dialed calls

uninterrupted over the circuit-switched PSTN network in case the VOIP network is not available

to the caller because it would allow users to make calls to the called party without the nuisance

of having call drops.

Regarding claim 49, Albal discloses the apparatus of claim 47, wherein the second voice-

band switch (VOIP unit, see lines 1-12, paragraph 0060, page 6 and element 248, Fig. 8) is

further configured to route the direct-dialed call to an IP gateway for routing to an IP network

(Internet, see element 220, Fig. 8), then to a destination IP gateway (Local Area Network, see

element 240, Fig. 8) and then to a local access provider network (Paging Network, see element

211, Fig. 8) for routing to a destination number of the direct-dialed voice-band call

(communication device 203 is interpreted as the destination while communication device 204 is

the source, see element 203, Fig. 8).

Regarding claim 52, Albal discloses the apparatus of claim 48, further comprising:

a provisioning system configured to automatically provision and maintain the network

apparatus (see Fig. 8).

Regarding claim 50, Albal discloses an apparatus, comprising:

the first voice-band switch (communication node, see lines 14-17, paragraph 0021,

page 2 and element 212, Fig. 8) being configured to receive a direct-dialed voice-band

call from a calling party's telephone number (see lines see lines 14-17, paragraph 0021, page 2

and element 212, Fig. 8) and to automatically designate the direct-dialed voice-band call;

a database coupled to the first voice-band switch (database server, see element

244, Fig. 8);

a second voice-band switch (VOIP unit, see lines 1-12, paragraph 0060, page 6) element

248, Fig. 8) coupled to the first voice-band switch (communication node, see element 212, Fig.

8), wherein the second voice-band switch is configured to receive the automatically routed

direct-dialed voice-band call from the first voice-band switch, to forward the direct-dialed voice-

band call for transmission as a VOIP call (see lines 1-12, paragraph 0060, page 6), and to open a

billing record for the VOIP call (see lines 1-5, paragraph 0063, page 6).

Abal does not specifically disclose automatically designate the direct-dialed voice-band

call as a voice-over-Internet protocol (VOIP) call.

However, Abal discloses routing direct dial call dynamically from a caller to a called

party (see lines 14-17, paragraph 0021, page 2). Abal further discloses the VOIP unit in a

transport system that converts speech inputs into a VOIP call to be transmitted over the Internet

(see lines 1-12, paragraph 0060, page 6).

Therefore, it would have been obvious to one ordinary skill in the art at the time the

invention was made to combine the direct dial feature with the VOIP call routing feature of Abal

such that direct-dialed voice-band calls are routed over an Internet protocol (IP) network and the

service registered with the communication node of Abal is a VOIP service such as the VOIP

routing and direct-dialed registration service taught by Abal. The motivation to do so is to allow

users to make direct dialed calls over the Internet in order to reduce user calling charges because

the Internet is a public packet-based network that allows voice inputs to be transmitted as VOIP

data packets without setting up a circuit-switched connection.

Abal does not explicitly disclose the first voice-band switch being an electronic switching

system (ESS) originating assist switch (OAS), the second voice-band switch being an ESS

handoff switch (HAS), the database being a universal subscriber data structure (USDS) and the

first voice-band switch being communicatively linked to an IP gateway.

However, Bartholomew discloses a system of effecting transfer of voice messages from a

first switched telephone network to a second switched telephone network via the Internet,

wherein the system comprising Service Switching Points (SSPs) (ESS originating assist switch)

(see col. 7, lines 5-67, col. 8, lines 1-4, col. 35, lines 1-6, element 210, Fig. 6), Service Control

Point (ESS handoff assist switch), Service Control Point database (SCP database) (USDS, see

col. 19, lines 36-67, element 243, Fig. 6), and Internet Interface (IP gateway, see element 1237,

Fig. 13) that couples SSP 1241 to the Internet (see Fig. 13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the telephone switch of Abal with the SSP, SCP, SCP database

and the Internet Interface taught by Bartholomew such that the first voice-band switch is an ESS

such as SSP and the database is SCP database that contains records of an entire geographical

area, and an IP gateway is Internet Interface that couples SSP to the Internet. The motivation to

do so is to allow SCP to provide appropriate routing and billing instructions that the SSP

executes to complete the Internet-based voice call.

Response to Arguments

3.   Applicant's arguments have been considered but are moot in view of the new ground(s)

of rejection.

Allowable Subject Matter

4.   Claims 43, 45-46, 55-59, 61-65, 66-70 are allowed.

Claims 53-54 are objected to as being dependent upon a rejected base claim, but would

be allowable if rewritten in independent form including all of the limitations of the base claim

and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

In claim 43, the apparatus of claim 37, wherein the first voice-band switch is further

configured, if the database contains information that the calling party's telephone number is only

registered for non-single-stage VOIP services or if the database contains information that the

calling party's telephone number is registered for the single-stage VOIP service and the

destination number of the direct-dialed voice-band call is inaccessible by the VOIP service, to

automatically designate the direct-dialed voice-band call as a circuit-switched call; and to

automatically route the direct-dialed voice-band call for routing as a circuit-switched call if the

direct-dialed voice-band call is designated as a circuit switched call.

In claims 45, 70, the provisioning system comprises:

a billing system coupled to the NPP, wherein the billing system being configured to

create bills based on usage, a terminating access ID and a calling plan uniform service order code

(USOC); and

a customer service message system (CSMS) coupled to the NPP, wherein the CSMS

being configured to synchronize between the first voice-band switch and the database which is

configured to store calling party telephone numbers that are registered for the VOIP service,

USOC information and destination number information.

In claim 53, the apparatus of claim 52, wherein the provisioning system comprises:

a network provisioning platform (NPP) configured to receive a voice-over-Internet

protocol (VOIP) service registration for the calling party, to generate at least one order for the

calling party's VOIP service, to store the at least one order for the billing party's VOIP service, to

manage the interaction between a billed telephone number and a calling party's telephone

number and to update a plurality of calling party records to compensate for numbering plan

changes;

a billing system coupled to the NPP, wherein the billing system is configured to

maintain at least one billing party's amount information, to maintain the VOIP service, and to

create bills based on usage, a terminating access ID and a calling plan uniform service order code

(USOC); and

a customer se-ice message system (CSMS) coupled to the NPP, wherein the CSMS is

configured to synchronize between the first voice-band switch and the database which is

configured to store calling party telephone numbers that are registered for the VOIP service,

USOC information and destination number information;

wherein the NPP is further configured to synchronize changes in the network system and

the billing system due to calling party activations, disconnections and changes.

In claim 55, an apparatus, comprising:

an electronic switching system (ESS) originating assist switch (OAS), the OAS being

configured to receive a direct-dialed voice-band call from a calling party's telephone number, the

direct-dialed voice-band call being associated with a destination telephone number, to determine

whether to route the direct dialed voice-band call over an Internet protocol (IP) network or a

circuit switched network, and, if it is determined to route the direct-dialed voice-band call over

the IP network, the OAS is configured to transmit the direct-dialed voice-band call to the IP

network, or, if it is determined to continue to route the direct-dialed voice-band call over the

circuit-switched network, the OAS is configured to transmit the direct-dialed voice-band call to

the circuit-switched network; and

an universal subscriber data structure (USDS) coupled to the ESS OAS, the USDS being

configured to store service information on a plurality of calling party telephone numbers, to store

information on which destination telephone numbers are accessible using a voice-over-Internet

protocol (VOIP) service, to receive the calling party's telephone number and the destination

telephone number of the direct-dialed voice-band call from the OAS, to determine if the calling

party's telephone number is registered for the VOIP service, and, if the calling party's telephone

number is registered for the VOIP service, to determine if the destination telephone number is accessible using the VOIP service, and to return a partial routing instruction and service information to the OAS.

In claim 61, the CSMS component is further configured to administer a country code field which is stored in the database.

In claims 66-69, the first voice-band switch being an electronic switching system (ESS) originating assist switch (OAS), the second voice-band switch being an ESS handoff assist switch (HAS) and the database being a universal subscriber data structure (USDS).

Conclusion

5.　　Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WELLINGTON CHIN
ERVISORY PATENT EXAMINE

KDM
Art Unit 2664